

WE CLAIM :

- Sub A1
- 5 1. A method of treating a liquid comprising water with a gas comprising ozone, the method comprising the steps of:
- 10 (a) providing the liquid in a treatment vessel;
- (b) introducing the gas into the vessel to treat the liquid in the treatment vessel to obtain treated liquid;
- (c) increasing the pressure in the treatment vessel; and
- (d) utilizing the increased pressure in the treatment vessel to dispense the treated liquid from the treatment vessel.
- 15 2. The method as claimed in claim 1 further comprising the step of venting at least a portion of the gas from the treatment vessel during step (b).
- 20 3. The method as claimed in claim 2 wherein the pressure in the treatment vessel is increased by reducing the amount of gas which is being vented from the treatment vessel.
- 25 4. The method as claimed in claim 1 further comprising the step of passing the treated liquid through a filter located downstream from the treatment vessel during step (d).
- Sub B3
- 30 5. The method as claimed in claim 4 further comprising the step of venting at least a portion of the gas from the treatment vessel during step (b) and passing at least a portion of the vented gas through the filter.
- Sub C2
6. The method as claimed in claim 1 further comprising the step of automatically dispensing the treated water when the pressure in

the treatment vessel reaches a preset level.

7. The method as claimed in claim 1 further comprising the step of introducing the gas into the treatment vessel as bubbles.

8. The method as claimed in claim 1 further comprising the step of treating the liquid with the gas until a prespecified condition is met, the prespecified condition selected from the group:

- (a) until a predetermined level of treatment of the liquid is achieved, or
- (b) for a predetermined time, or
- (c) until the treatment of the liquid does not match a preset treatment profile.

9. The method as claimed in claim 8 further comprising the step of signalling a user if a predetermined level of treatment of the liquid is not achieved in the predetermined time or if the treatment profile is not achieved.

10. The method as claimed in claim 8 further comprising the step of measuring the ozone concentration in the off gas in the treatment vessel and signalling a user if the concentration of ozone in the off gas is higher than that of the treatment profile.

11. The method as claimed in claim 8 further comprising the step of measuring the ozone concentration in the off gas in the treatment vessel and signalling a user if the concentration of ozone in the off gas is lower than that of the treatment profile.

12. The method as claimed in claim 1 further comprising the step of monitoring the treatment of the liquid and preventing the

liquid from being dispensed from the treatment vessel if a predetermined level of treatment of the liquid is not achieved.

13. An apparatus for treating a liquid comprising water with a gas comprising ozone, the apparatus comprising:

(a) a treatment vessel having at least one inlet port for introducing the gas and the liquid into the vessel and, a gas outlet port for removing gas from the vessel;

(b) a pressurized source of the gas for treating the liquid in communication with gas inlet port;

(c) a first passageway for dispensing treated liquid from the treatment vessel during a dispensing cycle, the passageway having a first valve operable between a first open position and a second closed position;

(d) a second valve associated the gas outlet port and having a first open position for allowing the off gas to vent from the treatment vessel and a second open position for preventing the off gas to vent from the treatment vessel

whereby when the pressure in the treatment vessel reaches a predetermined level, the first valve automatically moves to the open position to cause treated liquid to flow from the treatment vessel through the first passageway.

14. The apparatus as claimed in claim 13 further comprising a filter positioned downstream from the treatment vessel and the predetermined pressure level is determined based on the pressure required to cause the treated water to flow through the filter.

15. The apparatus as claimed in claim 14 further comprising a second passageway in flow communication with the second valve and

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